

WHAT IS CLAIMED IS:

1. A method of AutoRun using a semiconductor storage device, the semiconductor storage device being coupled to a host computer having an operation system with an AutoRun mechanism, comprising:
 - 1) the operation system of the host computer sending out an inquiry command to the semiconductor storage device for detecting a type of the device;
 - 2) the semiconductor storage device replying to the inquiry command from the operation system based on one or more predetermined device types;
 - 3) the operation system of the host computer deeming the semiconductor storage device as one type of the predetermined device types according to the reply from the semiconductor storage device, and performing an operation accordingly; and
 - 4) the AutoRun mechanism of the operation system searching for an AutoRun configuration file stored in the semiconductor storage device which simulates said deemed device type so that a specific file directed by the searched AutoRun configuration file can be executed by the operation system.
2. The method of Claim 1, wherein the semiconductor storage device is coupled to the host computer through one selected from, but not limited to the group consisting of a USB interface, a UWB interface, a blue-tooth interface, an IrDA infrared interface, a HomeRF interface, an IEEE 802.11a interface, an IEEE 802.11b interface, an IEEE 1394 Bus, an IDE Bus, a USB Bus, an LAN, and/or a WAN.
3. The method of Claim 1, wherein the predetermined device types, which are supported by the AutoRun mechanism of the operation system of the host

computer, include, but not limited to, an optical disk drive, a host disk, a removable disk, a USB large volume disk, and /or a USB flash disk.

4. The method of Claim 3, wherein the optical disk includes, but not limited to, a CD-ROM, a CD-RW, a DVD-ROM, a DVD-RW, a DVD-RAM, a blue laser DVD, and/or a red laser DVD.

5. The method of Claim 1, wherein said deemed type of the semiconductor storage device can be changed by inputting an indication from a command, buttoning, or programming; the semiconductor storage device is then preset as a preset type selected from the predetermined types according to the input indication, and after the semiconductor storage device is reset, the semiconductor storage device is coupled to the host computer as the preset type of device.

6. The method of Claim 1, wherein the predetermined device types can be defined as one or more device types based on related protocols; the semiconductor storage device can be coupled to the host computer as one device, or as more devices which are processed according to the device types, respectively.

7. The method of Claim 1, wherein the semiconductor storage device detects whether the AutoRun configuration file is present in a storage space of the semiconductor storage device; if the AutoRun configuration file is present, the semiconductor storage device is coupled to the host computer as a preset type; if the AutoRun configuration file is not present, the semiconductor storage device is coupled to the host computer as a conventional storage device.

8. The method of any of Claims 1-7, wherein the host computer can perform a conventional storage operation on the semiconductor storage device according to a user command.

9. The method of Claim 8, wherein the semiconductor storage device can perform the conventional storage operation according to a user command after the AutoRun mechanism of the operation system is activated, regardless of the execution of the specific file.

10. The method of Claim 9, wherein the conventional storage operation is a process based on a protocol according to a conventional device type of the semiconductor storage device, and the protocol includes but not limited to UFI, SFF8020I, SCSI Transparent Command Set, Reduced Block Commands (RBC), T10 Project1240-D, ZIP disk and/or MO disk protocols.

11. An method of AutoRun using a semiconductor storage device, the semiconductor storage device being coupled with a host computer having an operation system with an AutoRun mechanism, comprising:

- 1) the operation system of the host computer sending out a first inquiry command to the semiconductor storage device for detecting the type of the device;
- 2) the semiconductor storage device replying to the first inquiry command from the operation system that the device is an optical disk drive;
- 3) the operation system of the host computer deeming the semiconductor storage device as an optical disk based on the reply from the semiconductor storage device, and performing an operation accordingly; and
- 4) the AutoRun mechanism of the operation system searching for an AutoRun configuration file stored in the semiconductor storage device which simulates an optical disk drive so that a specific file directed by the AutoRun configuration file can be executed.

12. The method of Claim 11, wherein the step 4) comprises:

4-1) the operation system sending out a second inquiry command to detect whether an optical disk is inserted into the optical disk drive when the semiconductor storage device is deemed to be an optical disk drive;

4-2) in response to the second inquiry command, the semiconductor storage device, which simulates an optical disk drive, replying to the operation system after a predetermined delay, that an optical disk is already inserted into the optical disk drive so that the operation system can deem the semiconductor storage device as an optical disk with an optical disk; and

4-3) the AutoRun mechanism of the operation system searching for the AutoRun configuration file stored in the semiconductor storage device which simulates the optical disk drive with an optical disk so that the operation system can execute the specific file directed by the AutoRun configuration file.

13. The method of Claim 12, an AutoRun program being preset in the semiconductor storage device coupled to the host computer and capable of directing a specific file; and the AutoRun program being directed by the AutoRun configuration file, the step 4-3) comprising:

4-3-1) the operation system accessing the AutoRun configuration file stored in the semiconductor storage device, and searching for the AutoRun program;

4-3-2) executing the AutoRun program to search for the specific file, and copying the AutoRun program and the specific file to a host disk of the host computer;

4-3-3) the copy of the AutoRun program in the host disk of the host computer calling and executing the copy of the specific file; and

4-3-4) the copy of the AutoRun program sending out a reset command to the semiconductor storage device.

14. The method of Claim 12, an AutoRun program being preset in the semiconductor storage device coupled to the host computer and capable of directing a specific file; and the AutoRun program being directed by the AutoRun configuration file, the step 4-3) comprising:

4-3-1) the operation system accessing the AutoRun configuration file stored in the semiconductor storage device to search for the AutoRun program, and timing;

4-3-2) executing the AutoRun program to search for the specific file, copying the AutoRun program and the specific file to be executed to a host disk of the host computer;

4-3-3) the copy of the AutoRun program in the host disk of the host computer calling and executing the copy of the specific file; and

4-3-4) sending out a reset command to the semiconductor storage device when the timing ends.

15. The method of Claim 14, wherein the timing is set by a user or through a special software and/or program.

16. The method of Claim 11, further comprising steps for switching the semiconductor storage device to the conventional storage device after activating the AutoRun mechanism of the operation system in step 4):

5) resetting the semiconductor storage device;

6) replying that the semiconductor storage device is the conventional storage device when the operation system sends out the first inquiry command for detecting the type of the device;

7) the operation system of the host computer performing a configuration based on the reply from the semiconductor storage device; and

8) the operation system performing a conventional storage operation on the semiconductor storage device according to a user command.

17. The method of Claim 16, wherein said steps for switching the semiconductor storage device to a conventional storage device can be performed after activating the AutoRun mechanism of the operation system, regardless of the execution of the specific file.

18. The method of any of Claims 11-15, wherein the AutoRun mechanism of the operation system of the host computer supports an automatic execution of a file in the optical disk in the optical disk drive, and the optical disk drive includes but not limited to a CD-ROM, a CD-RW, a DVD-ROM, a DVD-RW, a DVD-RAM, a blue laser DVD, and/or a red laser DVD.

19. The method of any of Claims 11-15, wherein a device type of the semiconductor storage device can be changed by inputting an indication from a command, buttoning, or programming; the semiconductor storage device is then preset as a preset type selected from the predetermined types according to the input indication, and after the semiconductor storage device is reset, the semiconductor storage device is coupled to the host computer as the preset type of device.

20. The method of any of Claims 11-15, wherein the host computer can perform a conventional storage operation on the semiconductor storage device according to a user command.